

Module 12 Lesson

Strategies for Urban Driving



Content

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 - ♦ **Business District Characteristics**
 - ♦ **Risky Driving Behaviors in Business Districts**
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- **Reduced Risk Driving on Different Urban Roads**
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 - ♦ **Navigating Intersections**
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M12—Strategies for Urban Driving



Lesson Objective: The student distinguishes how driving conditions and characteristics in urban and suburban areas are different than other driving environments and applies time and space management strategies with vision, motion, and steering control for good driving habits within urban driving environments.

Instructional Topic	Content	Slide
URBAN AND SUBURBAN DRIVING CHARACTERISTICS ◆ Business District Characteristics	Introduce, model, practice and discuss Urban and suburban driving includes residential areas where traffic can be light; business areas where traffic can be congested and inconsistent; and higher speed areas, designed to move traffic through an urban area	T12-1
	Urban business districts have more complex and higher traffic volume that can result in stressful driving conditions	T12-2
	<ul style="list-style-type: none"> There are more hazards mile for mile in city driving than in residential area driving At times the hectic pace of city traffic can almost become overwhelming 	
	... A simple trip to pick up a gift can become a challenge as drivers deal with traffic jams, traffic lights that always seem to be red, multiple intersections that are often hidden, and illusive parking places	
	... If it feels like you're in the middle of a pack of Nascar drivers, use time and space management techniques to reduce risk and stress	
	Examples of conditions a driver could encounter and be prepared for include:	T12-3
	<ul style="list-style-type: none"> More potential hazards and distractions such as: pedestrians, bicyclists, road signs, billboards, traffic signals, advertisements and road markings 	T12-4
	<ul style="list-style-type: none"> Many intersections controlled by traffic signs and signals Streets wider than residential streets Cities organized into blocks with many intersections in shorter areas—constant searching is needed City blocks divided by alleys, creating even more intersections Many stores and businesses Faster traffic Traffic that starts and stops frequently Gridlocked traffic due to "rush hour" congestion Stop and go traffic lasting for many blocks or miles Crashes and/or special events like parades or concerts creating a need for alternate routes 	T12-5
	<ul style="list-style-type: none"> Rows of parked vehicles, delivery trucks and blind alleys creating line-of-sight, path-of-travel (LOS/POT) restrictions to roadways and pedestrians Parking difficult to locate; have coins available for parking meters Drivers competing for lane openings or parking spaces Work zones creating congested conditions and impatient drivers Detours due to street maintenance or emergencies Potholes caused by heavy traffic Double parked delivery trucks 	T12-6
		T12-7
		T12-8

Student Learning Activities

Resources



Montana Driver Education and Training

Strategies for Urban Driving



8112 - 1
Nov 2006

Urban Driving Characteristics

- Urban and suburban driving includes residential areas where traffic can be light; business areas where traffic can be congested and inconsistent; and higher speed areas, designed to move traffic through an urban area



8112 - 2
Nov 2006

Business District Characteristics

- There are more hazards mile for mile in city driving than in residential area driving
- At times the hectic pace of city traffic can almost become overwhelming



8112 - 3
Nov 2006

Business District Characteristics

- Pedestrians, bicyclists, road signs, billboards, traffic signals, advertisements and road markings
- Many intersections controlled by traffic signs and signals
- Streets wider than residential streets
- City blocks divided by alleys, creating even more intersections
- Many stores and businesses
- Faster traffic
- Traffic that starts and stops frequently
- Gridlocked traffic due to "rush hour" congestion
- Stop and go traffic lasting for many blocks or miles
- Crashes and/or special events like parades or concerts creating a need for alternate routes



8112 - 4
Nov 2006

Business District Characteristics

- Rows of parked vehicles, delivery trucks and blind alleys creating line-of-sight and path-of-travel (LOS/POT) restrictions to roadways and pedestrians
- Parking difficult to locate
- Drivers competing for lane openings or parking spaces
- Work zones creating congested conditions and impatient drivers
- Detours due to street maintenance or emergencies
- Pot holes caused by heavy traffic
- Double parked delivery trucks



8112 - 5
Nov 2006

Business District Characteristics



8112 - 6
Nov 2006

Business District Characteristics



In this traffic scene, how many business district characteristics can you identify?

8112 - 7
Nov 2006

Business District Characteristics



In this traffic scene, how many business district characteristics can you identify?

8112 - 8
Nov 2006

M12

Instructional Topic	Content	Slide
◆ Risky Driving Behaviors in Business Districts	Risky driving behaviors include:	T12-9
	<ul style="list-style-type: none">• Failing to plan a route to a desired destination by avoiding rush hour traffic or work zone areas• Failing to search at least one block ahead• Failing to search for pedestrians moving into the street• Taking the right of way from other drivers• Tailgating• Speeding• Failing to signal• Failing to check blind areas• Ignoring blind areas• Running red lights• When parked, opening the street side door into oncoming traffic<ul style="list-style-type: none">... A door should not be opened unless it can be done without interfering with the movement of traffic• Failing to wear a seat belt	T12-10
		T12-11
◆ Urban and Suburban Residential Areas	Residential areas typically have lower traffic volume and slower speed limits	
	<ul style="list-style-type: none">• Speed limits on residential streets are usually 25 mph or less• Most crashes occur close to home; perhaps because drivers are more comfortable and less inattentive to familiar roads and conditions• Examples of residential area driving conditions include:	T12-12
	... More narrow streets	T12-13
	... A faster pace than in business areas	
	... Streets not well lit at night in suburban areas	
	... Streets in urban business areas may be well-lighted at night	
	... Hidden driveways	T12-14
	... Controlled and uncontrolled intersections that are difficult to identify	
	... Inattentive children in residential areas as they play in the roadways, ride bikes, roller skate, ride on skateboards, and use power toys	T12-15
	... More pedestrians, walkers, runners and joggers	T12-16
... Frequent speed bumps used to discourage speeders		
... Some neighborhoods permit parking on either side of the street that results in traffic moving into the street from either direction	T12-17	
... Parked cars create line-of-sight problems		
... Line-of-sight restrictions caused by trees, bushes, signs		
◆ Risky Driving Behaviors in Residential Areas	Risky driving behaviors include:	T12-18
	<ul style="list-style-type: none">• Speeding• Failing to search for pedestrians and bicyclists entering or on the street• Failing to look for line-of-sight restrictions that hide traffic signs• Ignoring speed bumps• Failing to yield the right of way on narrow streets• Running stop signs• Failing to look for traffic and pedestrians when exiting a driveway• Failing to wear a seat belt	

Student Learning Activities

Resources



Business District Characteristics



In this traffic scene, how many business district characteristics can you identify?



W12 - 8
April 2006

Risky Behaviors in Business Districts

- Failing to plan a route
- Failing to search at least one block ahead
- Failing to search for pedestrians moving into the street
- Taking the right of way from other drivers
- Tailgating
- Speeding
- Failing to signal
- Failing to check blind areas
- Running red lights
- When parked, opening the street side door into oncoming traffic
- Failing to wear a seat belt



Is there a risky driver behavior in this traffic scene?



W12 - 10
April 2006

Urban and Suburban Residential Areas

- Residential areas typically have lower traffic volume and slower speed limits
- Speed limits on residential streets are usually 25 mph or less
- Most crashes occur close to home; perhaps because drivers are more comfortable and less inattentive to familiar roads and conditions



Is this residential area similar to where you live?



W12 - 11
April 2006

Urban and Suburban Residential Area Characteristics

- More narrow streets
- A faster pace than in business areas
- Streets not well lit at night in suburban areas
- Streets in urban business areas may be well-lighted at night
- Hidden driveways
- Controlled and uncontrolled intersections that are difficult to identify



W12 - 12
April 2006

Urban and Suburban Residential Area Characteristics



You are the driver. How many residential characteristics can you identify?



W12 - 13
April 2006

Urban and Suburban Residential Area Characteristics



You are the driver. How can you improve your line of sight?



W12 - 14
April 2006

Urban and Suburban Residential Area Characteristics



Will the child on the scooter create a concern for drivers? Why?



W12 - 15
April 2006

Risky Behaviors in Urban and Suburban Residential Areas

- Speeding
- Failing to search for pedestrians and bicyclists entering or on the street
- Failing to look for line-of-sight restrictions that hide traffic signs
- Ignoring speed bumps
- Failing to yield the right of way on narrow streets
- Running stop signs
- Failing to look for traffic and pedestrians when exiting a driveway
- Failing to wear a seat belt



You are the driver. Describe risky driver behaviors to avoid.



W12 - 16
April 2006

Urban and Suburban Residential Area Characteristics

- More pedestrians, walkers, bicyclists, runners and joggers
- Speed bumps used to discourage speeders
- Some neighborhoods permit parking on either side of the street resulting in traffic moving into the street from either direction
- Parked cars create line-of-sight problems
- Line-of-sight restrictions caused by trees, bushes, signs
- Inattentive children in residential areas as they play in the roadways, ride bikes, roller skate, ride on skateboards, and use power toys



W12 - 17
April 2006

Urban and Suburban Residential Area Characteristics



On this residential street, how many characteristics can you identify?



W12 - 18
April 2006

M12

Instructional Topic	Content	Slide
REDUCED RISK DRIVING ON DIFFERENT URBAN ROADS	Introduce, model, practice and discuss On two-lane streets avoid crossing the centerline to go around cars that are:	T12-19
◆ Two-Lane Streets	<ul style="list-style-type: none"> • parking, • double parked delivery vehicles, • taxis, • buses or • other POT restriction until there is no oncoming traffic 	T12-20
◆ Multiple-Lane Streets	<ul style="list-style-type: none"> • On streets with two lanes going in the same direction, the left lane might not be the best travel lane <ul style="list-style-type: none"> ... Sudden starts and stops may occur if there are no turn lanes or center share lane to help traffic make left turns ... Oncoming traffic may drift across the centerline into the other lane 	T12-21
◆ Navigating Intersections	<p>On streets with two or more lanes and a center share lane, choose the lane with the smoothest flow</p> <ul style="list-style-type: none"> ... Sometimes the left lane may be the lane of choice because the right lane traffic may be stopped by slowing vehicles preparing to turn right while waiting for pedestrians ... Buses and taxis make frequent stops ... Shared middle turn lanes help turning traffic to move out of the traffic flow ... Watch for LOS-POT conditions 	T12-22
◆ Navigating Intersections	<p>Time arrival at the signal, but not too early as to confuse other road users</p> <ul style="list-style-type: none"> • Search deep into the intersection, left-front-right • For turns just past the intersection into a driveway, signal after crossing the intersection • When traffic is backed up (such as rush hour traffic), be able to clear the intersection before the traffic light changes to red • Maintain awareness of the rear zone; rear end crashes are common in urban areas • When the light turns green, take two seconds to ensure someone is not running a red light • Blocking intersections: <ul style="list-style-type: none"> ... Is illegal ... Causes gridlock ... May slow or delay emergency vehicles ... Prevents traffic from moving if someone needs to turn • Identify a safe gap when joining with traffic or passing through an intersection <ul style="list-style-type: none"> ... Enough time is needed to make speed and steering adjustments 	T12-23

Student Learning Activities

Resources



Two-Lane Streets

- On two lane streets avoid crossing the centerline to go around cars that are parking, double parked delivery vehicles, taxis, buses or other POT restriction until there is no on-coming traffic
- On streets with two lanes going in the same direction, the left lane might not be the best travel lane
- Sudden starts and stops may occur if there are no turn lanes or center share lane to help traffic make left turns
- Oncoming traffic may drift across the centerline into the other lane



You are the driver approaching this scene. What lane position would you choose? Why?



M12 - 18
Nov 1998

Two-Lane Streets

The speed limit on this roadway is 55 mph

The drivers are all driving at the maximum speed limit



In this traffic scene, identify the driver, environment, and vehicle conditions drivers should see and be aware of



M12 - 19
Nov 1998

Two-Lane Streets

Describe all the signs, signals, and markings in this street scene



Is this street flat or on a hill?



M12 - 21
Nov 1998

Multiple Lane Streets

On streets with two or more lanes and a center share lane, choose the lane with the smoothest flow



You are the driver. Which lane would you choose to travel in. Why?



M12 - 22
Nov 1998

Navigating Intersections

- Time arrival at the signal
- Search deep, left-front-right
- Signal appropriately
- Be able to clear the intersection
- Maintain rear zone awareness
- Stop where you can see the tires of the vehicle ahead touching the road
- Wait two seconds before moving when the light turns green
- Identify a safe gap



You are the driver. Describe your front zone.



M12 - 23
Nov 1998

M12

Instructional Topic	Content	Slide
◆ Lane Choices	<p>Business districts may have a variety of one-way, two-way, controlled and uncontrolled intersections</p> <ul style="list-style-type: none"> • Lane choices can increase or decrease stress and risk <ul style="list-style-type: none"> ... Chose to drive within one lane until a turn is required; weaving in and out of traffic increases risk ... Identify lanes with less traffic, drive in these lanes if they will reach the desired destination ... Right lanes can become blocked by drivers turning right being stopped by pedestrians or other traffic ... Left lanes can be hazardous due to oncoming traffic drifting over the center-line, turning left across the path of travel, or making illegal U-turns • One way streets help move larger volumes of vehicles but can contribute to driver confusion when looking for and missing a turn onto unfamiliar streets • Avoid lanes next to parked cars to improve line of sight and reduce the risk of a collision with a parking driver or pedestrian 	T12-24
—Buses	<p>Buses can create traffic jams as vehicles wait for them to load or unload passengers</p> <ul style="list-style-type: none"> • Search 12-15 seconds ahead for buses moving to and away from bus stops; move to another lane if available 	T12-25
	<ul style="list-style-type: none"> • Identify bus lanes marked for use exclusively for buses; do not occupy these lanes • Do not be tempted to pass a stopped bus if you are caught behind the bus; if driving in the lane along side the bus, watch for pedestrians going to and from the bus 	T12-26
—Pedestrians and Bicyclists	<p>When there is a collision between a pedestrian or bicyclist and a vehicle, the pedestrian and bicyclist are always the losers</p> <ul style="list-style-type: none"> • Both are more vulnerable to injuries than vehicle occupants • Urban business districts will have more pedestrians crossing the roadway who may be distracted or carrying packages <ul style="list-style-type: none"> ... Watch for jaywalkers moving into the path of travel • Search for pedestrians and bicyclists that could enter the street but be momentarily hidden: <ul style="list-style-type: none"> ... between vehicles ... by bushes, trees, signs, buildings • Watch for distracted pedestrians carrying packages, talking on a cell phone, talking with other pedestrians <ul style="list-style-type: none"> ... Decide if a light tap on the horn is needed to alert a pedestrian or bicyclist you are approaching • Watch for bicyclists who often are couriers in large metropolitan areas <ul style="list-style-type: none"> ... Courier bicyclists carry messages or packages and may appear in traffic quickly; cover the brake when fast moving bicyclists are seen 	T12-27
		T12-28

Student Learning Activities

Resources



Lane Choices

- Lane choice can increase or decrease stress and risk
- Weaving in and out of traffic increases risk
- Identify lanes with less traffic
- Right lanes can become blocked
- Left lanes can be hazardous
- One way streets help move larger volumes of vehicles but can contribute to driver confusion
- Avoid lanes next to parked cars



M12 - 24
Nov 08

Bus Lanes

- Do not be tempted to pass a stopped bus if you are caught behind the bus; wait until the bus starts moving before changing lanes
- If driving in the lane along side the bus, watch for pedestrians going to and from the bus



Identify lanes marked for use exclusively for buses; do not occupy these lanes



M12 - 25
Nov 08

Buses

- Buses can create traffic jams as vehicles wait for them to load or unload passengers
- Search 12-15 seconds ahead for buses moving to and away from bus stops; move to another lane if available



You are the driver preparing to pass this bus. What action will you take? Why?



M12 - 26
Nov 08

Pedestrians and Bicyclists

- Pedestrians and bicyclists are always the losers in a collision
- Watch for inattentive pedestrians
- Urban business districts will have more pedestrians crossing the roadway who may be distracted or carrying packages
- Watch for jaywalkers moving into the path of travel
- Pedestrians and bicyclists can be momentarily hidden



M12 - 27
Nov 08

Bicyclists



If you were the driver backing into this parking space, what actions would you take? Why?



M12 - 28
Nov 08

M12

Instructional Topic	Content	Slide
◆ Lane Changes	<p>Ask the questions: Is it necessary? Is it legal? Is it safe?</p> <ul style="list-style-type: none"> Changing lanes in congested traffic carries added risk <ul style="list-style-type: none"> ... Other drivers may want to enter the same lane at the same time ... Traffic turning left could be more difficult to identify in the traffic mix <p>For additional information see Module 7 <i>Strategies for Mixing with Traffic</i>, page 22, Changing Lanes</p>	T12-29
Good Habits Managing Time and Space in Urban Environments	<p>Introduce, model, practice and discuss</p> <p>Using good habits in urban areas requires knowing and applying the time and space management strategies learned in this traffic education class</p>	T12-30
	<p><u>Use an orderly search by:</u></p> <ul style="list-style-type: none"> Searching front zones at least one-two blocks ahead for changing zone conditions 	T12-31
	<ul style="list-style-type: none"> Checking rear zone when you see a change to your front and side zones Watching for pedestrians and bicyclists, even when they are not watching for drivers 	T12-32
	<ul style="list-style-type: none"> Checking all blind areas before changing lane position Searching intersections and driveways Watching for changing traffic light conditions and timing arrival when possible Searching for traffic signs hidden by bushes and trees Evaluating the 4-6 second area before entering that area Searching for vehicles parked along the street that can create large line-of-sight and path-of-travel restrictions 	T12-33
	<p><u>Control space to the front by:</u></p> <ul style="list-style-type: none"> Covering the brake when traffic and conditions become less predictable Using a staggered stop to give larger vehicles more room to turn Adjusting lane position when there is a path-of-travel restriction Striving to maintain a minimum three-second following distance Being prepared to reduce speed and move into a different lane position to improve traffic and visibility conditions Stopping behind vehicles by using the “see tires on the pavement” rule Taking two seconds before moving into the intersection when the traffic light turns green, to search the left, front, and right zones Determining the point of no return when two seconds from the intersection Yielding to oncoming drivers if there are parked cars in their lane that leaves only room for one vehicle to pass Staying out of other drivers’ blind areas Reducing speed and covering the brake when pedestrians and bicyclists are seen Using the lane position that gives the best LOS-POT Using a staggered or safety stop when streets are narrow Using reference points to know where your tires are tracking 	T12-34

Student Learning Activities

Resources



Lane Changes

- Changing lanes in congested traffic carries added risk
- Other drivers may want to enter the same lane at the same time
- Traffic turning left could be more difficult to identify in the traffic mix


M12 - 20
April 1999

Good Habits Managing Time and Space in Urban Environments

- Use an Orderly Search


M12 - 20
April 1999

Where Should Drivers Search?


M12 - 21
April 1999

Where Should Drivers Search?


M12 - 22
April 1999

Where Should Drivers Search?


M12 - 23
April 1999

Control Space to the Front



You are traveling at 25 mph, what actions would you take to control your space?

Evaluate the following distance of the vehicles marked with a circle


M12 - 24
April 1999

M12

Instructional Topic	Content	Slide
Good Habits Managing Time and Space in Urban Environments (Cont.)	<u>Communicate to others</u> <ul style="list-style-type: none"> • Signal—Montana law requires signaling at least 100 feet before turning • Flash brake light when slowing or stopping • Tap the horn lightly, increase eye contact efforts • Use lane position to communicate intention • Use good communication with other drivers to help prevent conflicts 	T12-35
	<u>Make reduced risk decisions by:</u> <ul style="list-style-type: none"> • Staying within the posted speed limit and choose to reduce speed to reduce risk 	T12-36
	<ul style="list-style-type: none"> • Knowing your “perception time” (the amount of time it takes to see a hazard) and “reaction time” (the time it takes to act after seeing the hazard) • Knowing how to access local traffic information to plan alternative routes • Planning routes that avoid rush hour and work zone congestion • Avoiding frequent lane changes—it greatly increases the chance of a collision • Making smooth, controlled steering and braking maneuvers • Covering the brake when conditions become unstable • Always wearing a seat belt 	T12-37
	<p>When driving in urban areas, drivers may cut you off, pedestrians may jaywalk, and drivers may rubberneck—stay cool, calm and collected to arrive safely at your destination</p>	T12-38
ASSIGNMENT		
ASSESSMENT		

Student Learning Activities

Resources



Communicate to Others



What communication clues are seen in these traffic scenes?



M12 - 25
10/1/09

Make Reduced Risk Decisions



- Stay within the posted speed limit and choosing to reduce speed to reduce risk
- Know your **Perception** time (the amount of time it takes to see a hazard) and **Reaction** time (the time it takes to act after seeing the hazard)
- Know how to access local traffic information to plan alternative routes
- Plan routes that avoid rush hour and work zone congestion
- Avoid frequent lane changes — it greatly increases the chance of a collision
- Make smooth, controlled steering and braking maneuvers
- Always wear a seat belt



M12 - 26
10/1/09

Make Reduced Risk Decisions



You are traveling at 30 mph. Search your target area. Describe the reduced-risk actions you would take.



M12 - 27
10/1/09



She'll do what you do.
Buckle up.



He'll do what you do.
Buckle up.

M12